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Health Record Banking: The Consumer-controlled, Market-based Community Solution for Health IT

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“The development of an information technology infrastructure has enormous potential to improve the safety, quality, and efficiency of health care in the United States”

- Institute of Medicine, *Crossing the Quality Chasm*, 2001

Key Points

- v **Quality Healthcare Requires Complete Information**
- v **Need Electronic Records AND Privacy**
- v **Solution: Health Record Bank**
 - λ **Rationale**
 - λ **Functions**
 - λ **Business Model**
- v **Next Steps**
 - λ **Community non-profits hire Health Record Bank providers**
 - λ **State governments may enact policy to support Health Record Bank development**

Health Information Today

- ✓ **Scattered Records**
 - λ Each person's records are scattered at whatever locations care has been given
 - λ Mostly paper
- ✓ **Information sharing not effective**
 - λ Cumbersome, expensive, time-consuming, and fallible
 - λ No mechanism to collect patient information from disparate sources
- ✓ **No responsible institution**
 - λ Each patient's complete records (from all sources) are not available for care
 - λ Need to create these institutions

Health Information Today (cont.)

- ✓ **Consequences of health information deficit**
 - λ **Medical errors common**
 - 44,000-98,000 preventable deaths/year (just in hospitals)
 - λ **Quality poor**
 - only 55% of adults receive recommended care (RAND study)
 - λ **Costs out of control**
 - rising >10% annually
 - consuming an increasing proportion of GDP
 - now \$2 trillion/year and growing

I. Quality Healthcare Requires Complete Information

- ✓ Status Quo

- λ Health information scattered
- λ Complete information not available
- λ No institution responsible

- ✓ Result

- λ Quality is poor
- λ Costs out of control

- ✓ More complete information --> better care

- ✓ Health IT can save 8% or more

II. Need for Electronic Records

- ✓ Rapid access
- ✓ Combine multiple scattered records into complete “master” record
- ✓ Rapid review using different views
 - λ Graphs
 - λ Charts
 - λ Enhance relevant information
- ✓ Automated reminders to improve quality and reduce errors

Benefits of electronic healthcare information

- A. Improving Healthcare Delivery at Point of Care (Improving Quality)**
 - λ Complete patient information
 - λ Decision support
- B. Reducing Costs & Achieving Efficiencies**
 - λ Eliminate duplicate tests & imaging
 - λ Eliminate duplicate communication channels (labs, x-rays, etc.)
- C. Support Public Health Initiatives & Biosurveillance**
 - λ Automated disease reporting
 - λ Automated syndrome reporting

Dangers of Electronic Records

“Anything you do to make information more accessible for good, laudable purposes will simultaneously make it more accessible for evil, nefarious purposes”

- William A. Yasnoff, *New York Times*, 2/18/07 (p. 16)

Therefore, privacy is a much greater concern as more health records are electronic.

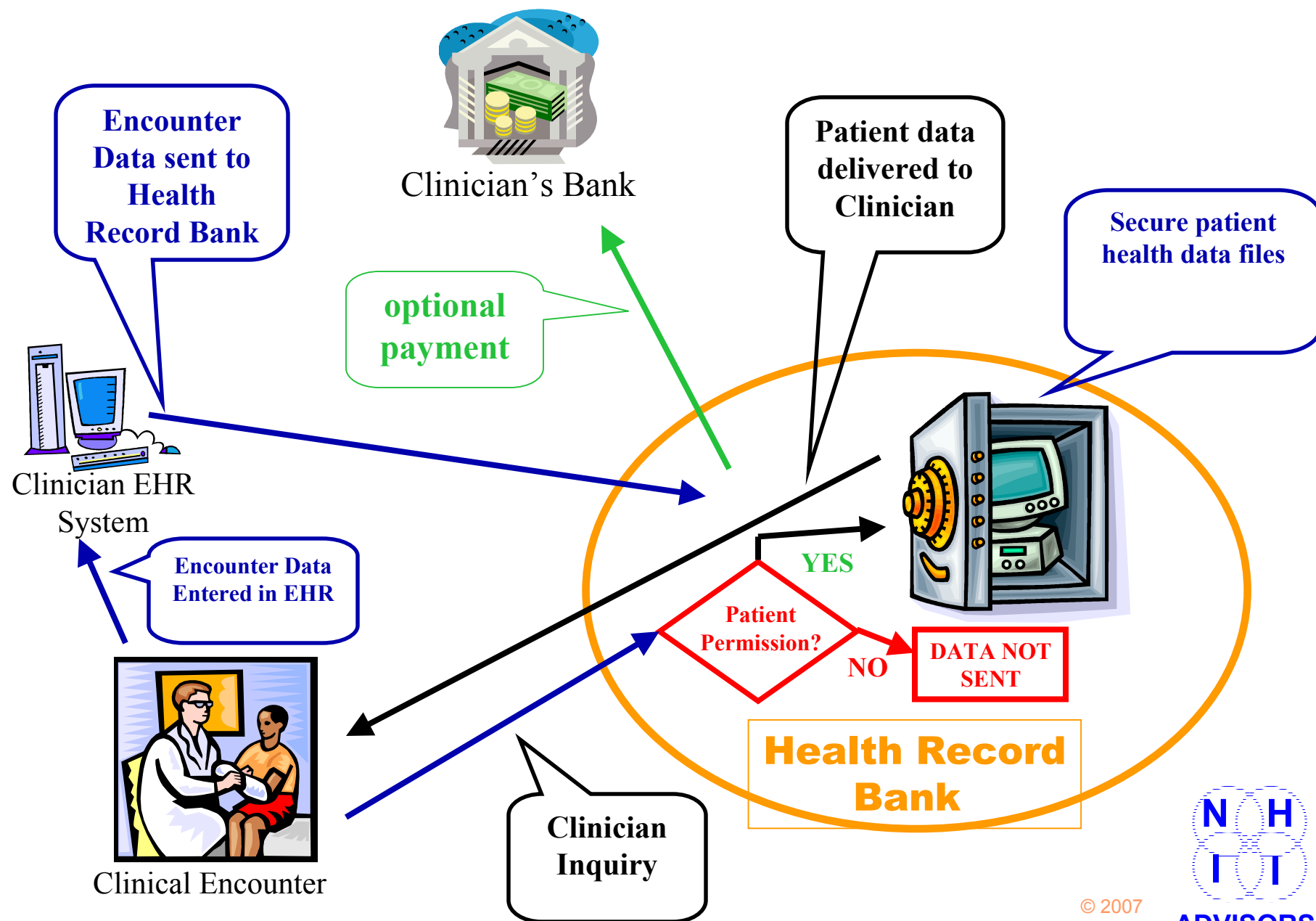
Consumers and Health Privacy

- ✓ Surveys of “information hiding”
 - λ 2006: 13% of consumers
 - λ 2007: 17% of consumers
- ✓ Consumers already control information in their records
- ✓ Without control, too many will opt out OR politically force system shut down
- ✓ Choices are today’s system or consumer control -- complete information without consent is not (and should not be) a viable option
- ✓ Patient control essential

III. Solution: Health Record Bank (HRB)

- ✓ Secure community-based repository of complete health records
- ✓ Access to records completely controlled by patients (or designee)
- ✓ “Electronic safe deposit boxes”
- ✓ Information about care deposited once when created
 - λ Required by HIPAA
- ✓ Allows EHR incentives to physicians to make outpatient records electronic
- ✓ Operation simple and inexpensive

Health Record Bank Operation



HRB Rationale

- v Operationally simple
 - λ Records immediately available
 - λ Deposit new records when created
 - λ Enables value-added services
 - λ Enables research queries
- v Patient control -->
 - λ Trust & privacy
 - λ Stakeholder cooperation (HIPAA)
- v Low cost facilitates business model
- v Creates EHR incentive options
 - λ Pay for deposits
 - λ Provide Internet-accessible EHRs

Central Repository

- Protects privacy (since data is known)
- Security controlled in one location
- Rapid response time
- Allows review of questionable deposits
- Allows queries for research (with permission)
- Alternative “scattered” model not feasible
 - Slow
 - Requires all systems to be available for queries 24/7
 - Requires universal interoperability
 - Searching data not feasible
 - Requires staffing “network central”
 - Requires real-time assembly of disparate records (expensive and error prone)



Examples of Community HII

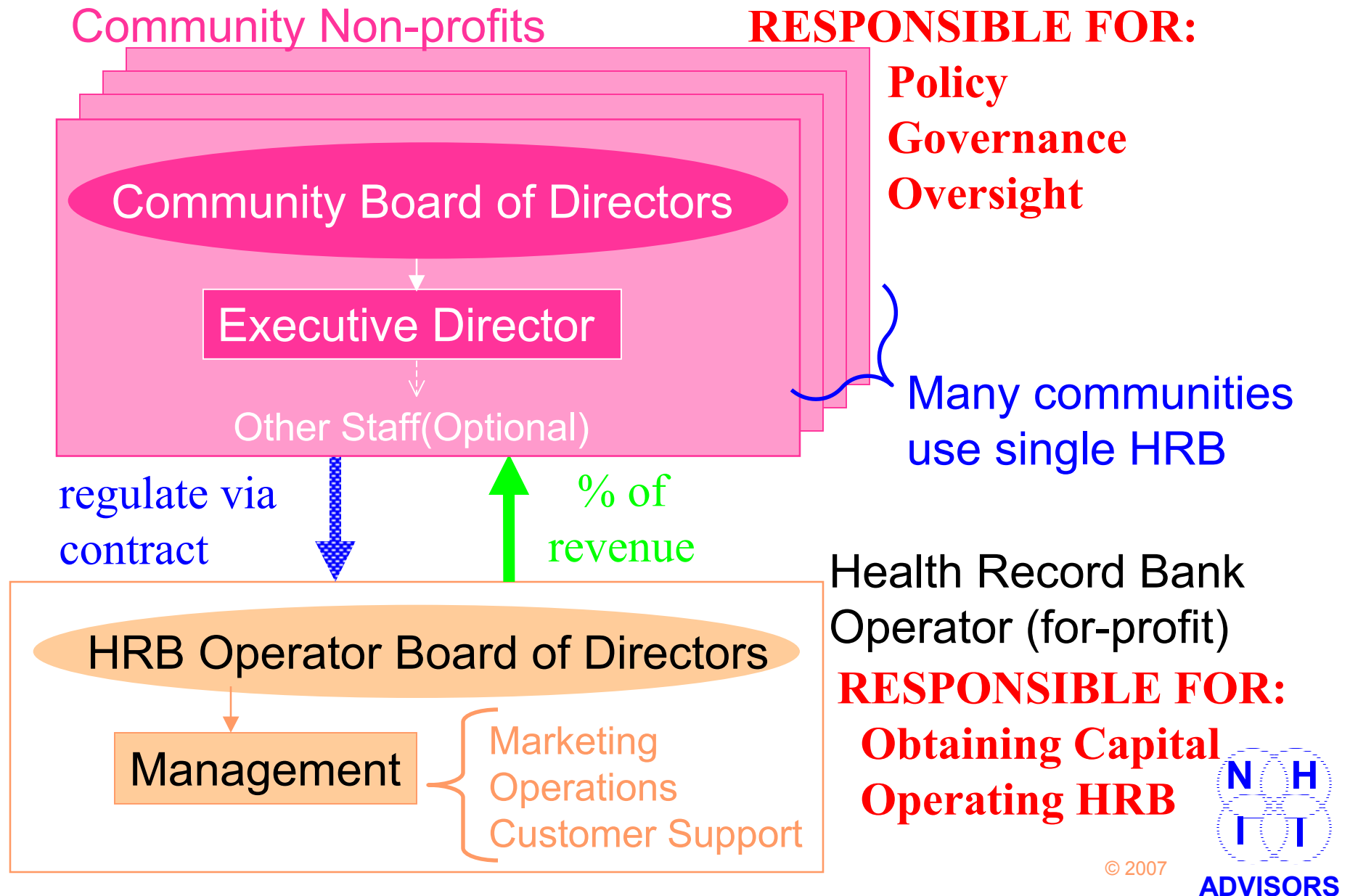
<u>Name</u>	<u>Data Storage</u>
Spokane, WA	Central
South Bend, IN	Central
Indianapolis, IN	Central
Fishkill, NY	Central
Bellingham, WA	Central
Cincinnati, OH	Central

Number of operational community HII systems using scattered model: NONE

Trusted HRB Governance

- ✓ Community non-profit contracting with for-profit HRB
 - λ For-profit organization has inherent conflict between fiduciary duty to shareholders (requiring sale of information) and consumer desire to keep information private
 - λ Non-profit community governance eliminates this conflict
 - Primary duty to consumers specified in contract with for-profit
 - Requirements for privacy, security, and audit also specified
 - λ Promotes trust without government regulation

Health Record Bank Organization



Trustworthy HRB Architecture

- ✓ Establish secure facility (as used for “classified” data)
- ✓ No phone/network connections to searchable database (server #1)
- ✓ Special “cubbyhole” server (#2) for individual records with no search/aggregation capabilities
 - λ Worst case release: 1 record
- ✓ Continuity of Operation
 - λ Backup facilities
 - λ Geographically separated

HRB Business Model

- ✓ Account fee starts at \$5/month (< 1% of healthcare costs)
 - λ Paid by patient or sponsor
 - λ Drops to \$1/month with large number of accounts (1,000,000+)
- ✓ Breakeven at about 100,000 accounts
 - λ Subsequent margins excellent
 - λ Can use revenue to reduce fees
- ✓ Additional revenue sources
 - λ Advertising
 - λ Queries
 - λ Value-added services (may be sponsored)

IV. Next Steps

- ✓ Establish community non-profit for governance
 - λ All key stakeholders
 - λ Include consumers
- ✓ Non-profit develops plan, engages for-profit health record bank
- ✓ Requires \$500-750K, 1-2 years
 - λ Organizational expenses
 - λ Executive Director & assistant
 - λ Business planning
 - λ Engage for-profit HRB provider

IV. Next Steps (continued)

- v Possible State Government Actions
 - λ Provide matching grants for health record bank startup in communities
 - λ Regulate health record banks
 - Consumer ownership & control of records
 - Independent privacy & security audits
 - Serious penalties for violations
 - λ Fund health record bank account fees for state beneficiaries
 - Medicaid
 - State employees

Key Points - Review

- ✓ **Quality Healthcare Requires Complete Information**
- ✓ **Need Electronic Records AND Privacy**
- ✓ **Solution: Health Record Bank**
 - λ **Consumer-controlled --> privacy & trust**
 - λ **Market-based --> sustainability**
 - λ **Community --> feasibility**
- ✓ **Next Steps**
 - λ **Community non-profits hire Health Record Bank providers**
 - λ **State governments may provide seed grants, regulation, and funding for beneficiary participation**

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"Someday, all this will be infrastructure."

Questions?

For more information:

www.ehealthtrust.com

www.healthbanking.org

www.yasnoff.com

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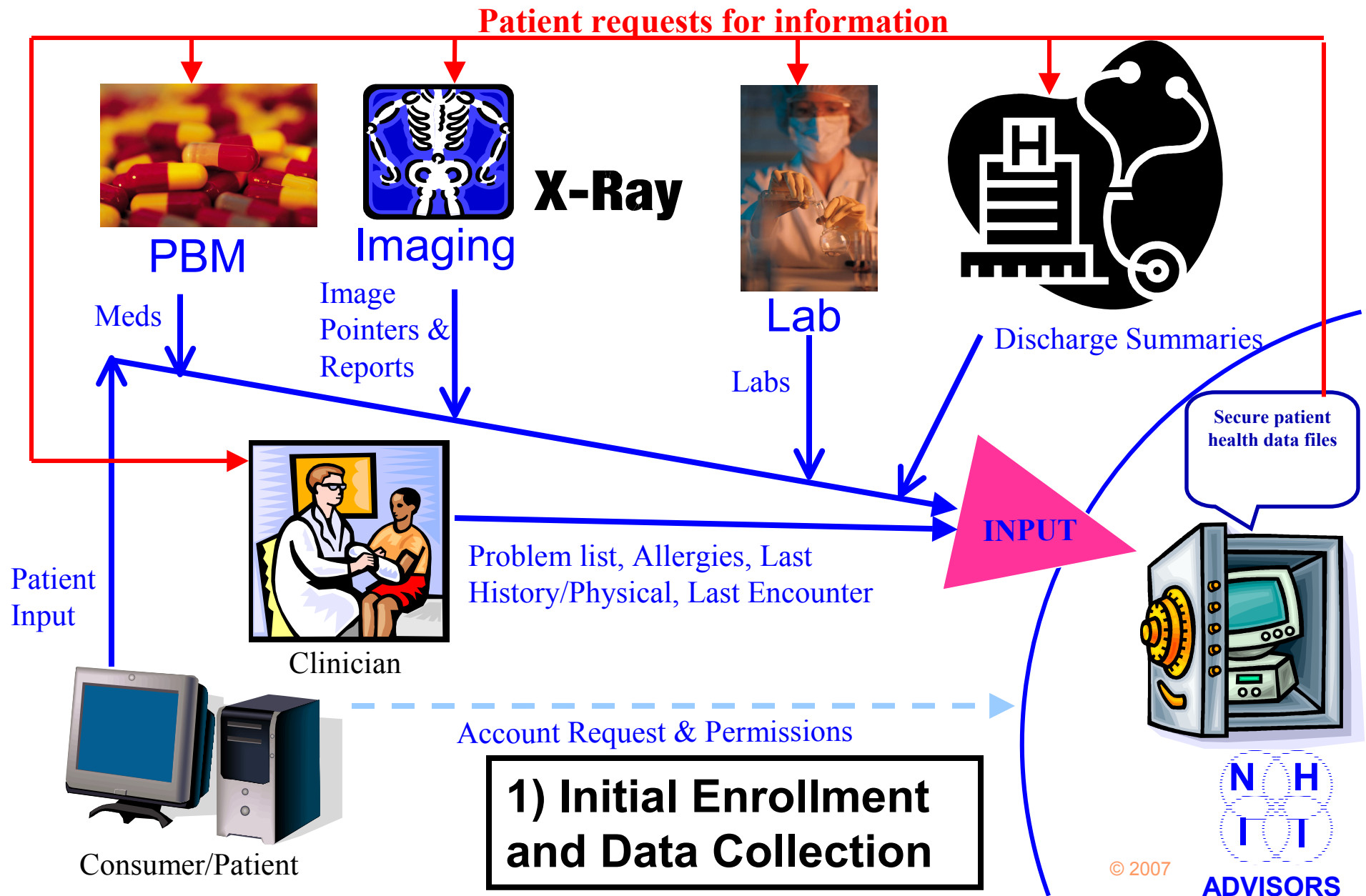
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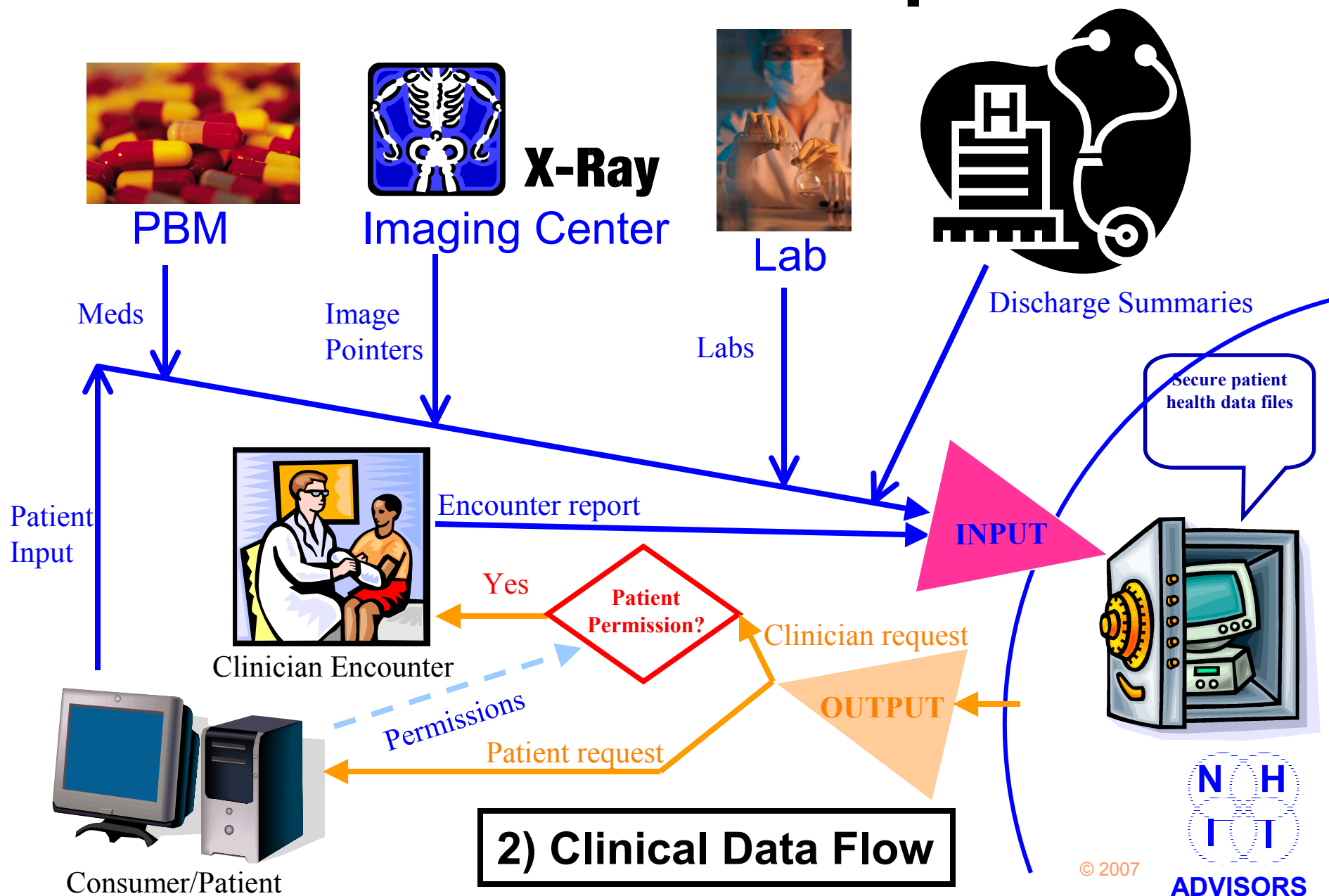
HRB Functions

- ✓ **Enrollment**
 - λ Initial collection of information
- ✓ **Care Episode**
 - λ New information deposited
- ✓ **Query**
 - λ Count & demographics of matches returned
- ✓ **Value-added Services**
 - λ Patient reminders
 - λ Process improvements

Health Record Bank Operations



Health Record Bank Operations



Health Record Bank Operations

3) Research Data Flow

